

RESEARCH AND DEVELOPMENT IN THE 2000 BUDGET: A BRIEF OVERVIEW

INTRODUCTION

This report contains information on Federal proposed fiscal year (FY) 2000 budget authority for the research and development (R&D) components of agency programs. The data were submitted by Federal agencies to the Office of Management and Budget in early 1999. This report includes historical data not affected by current legislation and therefore can be used for tracking funding trends. The report also contains detailed data on Federal R&D authorizations not readily available from other sources. How actions by Congress and the Administration affect the outcome of R&D funding levels will become apparent in 2000-01.

TOTAL R&D

In the first half of 1999, the administration proposed a total budget authority of \$75.4 billion for all Federal R&D programs in its FY 2000 budget, two percent less than the preliminary FY 1999 R&D total of \$76.9 billion. After adjusting for expected inflation, R&D budget authority will drop four percent. Budget authority for R&D grew 4.5 percent between FY 1998 and FY 1999 (an increase of 3 percent in constant dollars).

The five largest budget functions with respect to R&D funding—national defense; health; space research and technology; general science; and natural resources and environment—together account for 91 percent of all proposed Federal R&D funding.

Among individual functions, the largest FY 2000 R&D decrease (\$2.7 billion) is slated for defense (budget function code 050) which includes military programs of the Department of Defense (DoD) and the atomic energy defense activities of the Department of Energy (DOE). A seven percent decrease in national defense R&D budget authority is proposed. With this reduction, national defense will account for half (\$37.7 billion) of the Federal R&D total. The defense share of Federal R&D budget authority has decreased from 63 percent in FY 1990 to a proposed 50 percent in FY 2000. For the first time in 20 years, the nondefense share of Federal R&D budget authority will match the defense share. DoD's FY 2000 military research, development, test, and evaluation (RDT&E) budget will account for 91 percent (\$34.4 billion) of the national defense R&D. R&D funding for

DOE's atomic energy defense activities accounts for 8 percent (\$2.9 billion) of proposed FY 2000 national defense R&D.

The nondefense share of Federal R&D budget authority has increased steadily, from 37 percent in FY 1990 to an estimated 50 percent in FY 2000. The President's budget contains a \$1.2 billion increase in total nondefense R&D budget authority, to \$37.7 billion. This level represents a three percent increase from estimated FY 1999 funding.

Among individual budget functions, health (budget function code 550) is slated for the largest FY 2000 R&D budget increase, \$345 million above the FY 1999 level and will constitute 21 percent (\$15.8 billion) of the Federal R&D budget authority. The bulk of the health account (\$15.1 billion) will be for National Institutes of Health (NIH) programs. All 18 NIH institutes are slated for increased R&D budgets, and total R&D funding for health activities at NIH is expected to increase by \$367 million, or 2.5 percent, in FY 2000. The National Cancer Institute is slated to get the largest portion (\$2.7 billion) of NIH R&D dollars, and three other units—the Office of AIDS Research; the National Heart, Lung, and Blood Institute; and the National Institute of General Medical Sciences—are each expected to receive more than \$1 billion.

The Administration proposed a two percent increase (up \$183 million to more than \$8 billion) in R&D budget authority for space research and technology activities (budget function code 252) which includes space programs of the National Aeronautics and Space Administration (NASA). The largest share of NASA's R&D activities include: the space station (34 percent of NASA's R&D activities); space science (30 percent); and earth science (19 percent). Space research and technology will likely account for 11 percent of the total Federal R&D budget authority in FY 2000.

The Administration has proposed that research funding for general science (budget function code 251) increase 4.5 percent, or more than \$200 million in FY 2000, to nearly \$5 billion. This budget function category includes general science and basic research programs of the National Science Foundation (NSF) and DOE. NSF will account for 54.5 percent of these dollars, with DOE contributing

the rest of the general science funding. NSF supports mathematical and physical sciences; geosciences; biological sciences; engineering; computer and information sciences; and social, behavioral, and economic sciences. DOE's major funded activities (each more than \$300 million) for general science R&D include support of basic energy sciences; high energy physics; biological and environmental research; and nuclear physics. General science is likely to account for more than six percent of the total Federal R&D budget authority.

National resources and environment R&D (budget function code 300) is budgeted at \$1.9 billion for FY 2000, up one percent from the FY 1999 level (but a 1-percent decrease in constant dollars). Within this function, Federal efforts focus on providing cleaner air and water, conserving natural resources, and cleaning up environmental

contamination. Five agencies provide support for R&D activities in natural resources and environment: the Environmental Protection Agency (EPA), which accounts for 27.5 percent of the funding in this area; the Department of the Interior (30 percent); the Department of Commerce (29 percent); the Department of Agriculture (USDA) (12 percent); and DoD's Army Corps of Engineers (nearly 2 percent). Natural resources and environment R&D would account for nearly 3 percent of the total Federal R&D budget authority.

Regarding the remaining 11 R&D budget functions, transportation (R&D budget at \$1.8 billion), agriculture (\$1.5 billion), and energy (\$1.3 billion) each account for about 2 percent of Federal funding of R&D. The remaining eight functions each account for less than one percent of the total FY 2000 proposed R&D budget authority.